

(Preliminary Subject to Change)



Employees Retirement System

City of Philadelphia Employees Retirement System Executive Summary April 30, 2018

Total Fund Composite

		E	30, 2018					
	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)		
Total Fund Composite		5,243,768,695	324,125,073	100.0	100.0	0		
Total Fund w/o Alternative Assets		4,048,214,235	22,827,455	77.2	72.9	225,506,856		
Investment Grade Fixed Income Composite		689,498,146	50,021	13.1	14.0	-44,629,472		
Brandywine Global Investment Management	Global Fixed Income	167,645,648	50,021	3.2				
Garcia Hamilton & Associates	Int. Govt. Fixed Income	163,201,780	0	3.1				
Logan Circle	Core Plus Fixed Income	43,441,505	0	0.8				
Longfellow	Core Plus Fixed Income	154,398,542	0	2.9				
Rhumbline Core Bond Index	Core Fixed Income	160,810,671	0	3.1				
Opportunistic Fixed Income Composite		317,014,649	-17,928,559	6.0	6.0	2,388,528		
Apollo Franklin Partnership, L.P.	Opportunistic Fixed Income	18,669,634	-6,000,000	0.4				
Avenue Coppers Opportunity Fund LP	Opportunistic Fixed Income	35,044,085	-1,904,225	0.7				
KKR-PBPR Capital Partners LP	Opportunistic Fixed Income	91,429,146	-10,014,334	1.7				
Logan Circle - EMD	EM Fixed Income	72,682,191	-10,000	1.4				
Strategic Income Management	High Yield Fixed Income	98,933,516	0	1.9				
U.S. Equity Composite		1,589,513,631	-11,965,279	30.3	29.8	26,870,560		
Rhumbline Russell 1000 Index	Large-Cap Core	1,104,147,154	-12,000,000	21.1				
Aronson+Johnson+Ortiz LP	Large-Cap Value	44,328,458	0	0.8				
O'Shaughnessy Asset Management	Large-Cap Value	28,451,974	0	0.5				
Rhumbline MidCap Index	Mid-Cap Core	164,862,476	-6,845	3.1				
Rhumbline Russell 2000 Index	Small-Cap Core	40,143,929	-1,635	0.8				
Emerald Advisors	Small-Cap Growth	72,585,935	0	1.4				
Fisher Asset Management	Small-Cap Value	55,617,239	0	1.1				
Fiera Capital	Smid-Cap Growth	26,141,750	34,721	0.5				
Ariel	Smid-Cap Value	53,176,594	0	1.0				
Non-U.S. Equity Developed Composite		1,091,055,930	44,881,112	20.8	16.8	210,102,789		
Causeway Capital Management	Non-U.S. Large-Cap Core	194,304,121	0	3.7				
Northern Trust MSCI EAFE+Canada	Non-U.S. Large-Cap Core	752,809,884	-15,000,000	14.4				
Northern Trust International Small Cap	Non-U.S. Small-Cap Core	60,491,073	60,000,000	1.2				
Strategic Global Advisors	Non-U.S. Small-Cap Core	26,301,751	0	0.5				
Investors Group	Non-U.S. Small-Cap Core	53,066,274	0	1.0				
Non-U.S. Equity Emerging Composite		274,641,890	-3,000,000	5.2	5.2	1,965,918		
Rhumbline Emerging Markets Index	Emerging Markets	274,638,839	-3,000,000	5.2				

Ending April 30, 2018

Market Value: \$5,243.8 Million and 100.0% of Fund

Total Fund Composite

Market Value: \$5,243.8 Million and 100.0% of Fund

	Ending April 30, 2018										
	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)					
Cash Composite		86,489,989	10,671,271	1.6	1.1	28,808,533					
Cash	Cash & Equivalents	85,770,526	10,693,601	1.6							
Directed Commissions	Cash & Equivalents	719,462	-22,330	0.0							
Absolute Return		34,707,672	-5,209,941	0.7	0.5	8,488,829					
Elizabeth Park Capital Management	Long/Short Hedge Fund	30,973,632	0	0.6							
Archview Offshore Fund. LTD	Credit Hedge Fund	3,733,531	-1,838,903	0.1							
Real Assets Composite		763,703,336	316,759,788	14.6	15.6	-54,324,581					
Real Assets - Public Real Estate Composite		91,863,561	0	1.8	1.4	18,450,799					
Rhumbline FTSE NAREIT	Real Assets	91,863,561	0	1.8							
Real Assets - Open-End Real Estate Composite		363,715,428	233,617,604	6.9	7.6	-34,810,993					
UBS Trumbull Fund	Core Real Estate	283,336,835	153,662,981	5.4							
Clarion Lion Properties Fund	Core Real Estate	80,378,593	79,954,623	1.5							
Real Assets - Infrastructure Composite		185,240,072	81,989,311	3.5	4.0	-24,510,676					
Rhumbline Infrastructure Index	Publicly-Traded Infrastructure	130,240,072	27,000,000	2.5							
Rreef Global Infrastructure	Global Infrastructure	55,000,000	55,000,000	1.0							
Real Assets - Private Real Estate Composite		113,845,931	-682,625	2.2	2.6	-22,492,055					
Real Assets - Private Energy/Infrastructure Composite		9,038,344	1,841,593	0.2	-	9,038,344					
Private Assets Composite		397,143,453	-10,269,012	7.6	11.0	-179,671,104					
Private Assets - Private Equity	U.S. Private Equity FoF	386,485,195	-10,246,536	7.4							
Private Assets - Private Debt	Mezz. Private Equity	10,658,258	-22,476	0.2							

2 Marquette Associates, Inc.

Annualized Performance (Net of Fees)

Market Value: \$5,243.8 Million and 100.0% of Fund

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	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Total Fund Composite	0.4%	-3.2%	-0.2%	7.2%	9.4%	10.5%	5.2%	5.2%	6.2%	6.1%	5.3%	7.5%	Jul-88
Total Fund Policy Benchmark	0.4%	-2.8%	-0.1%	6.2%	7.9%	10.0%	5.3%	5.9%	6.7%	6.4%	6.3%	8.4%	Jul-88
Total Fund w/o Alternative Assets	0.5%	-3.7%	-0.1%	8.4%	10.9%	11.4%	5.6%	5.4%				6.1%	Jan-14
Investment Grade Fixed Income Composite	-0.9%	-1.1%	-0.8%	0.8%	2.0%	1.4%	1.5%	1.6%	1.3%	2.9%	3.8%	6.1%	Jul-88
BBgBarc US Aggregate TR	-0.7%	-1.1%	-2.2%	-1.0%	-0.3%	0.3%	1.1%	1.9%	1.5%	2.6%	3.6%	6.2%	Jul-88
Brandywine Global Investment Management	-2.2%	-2.6%	1.7%	4.7%	8.2%	4.1%	3.4%	2.8%	1.8%	4.2%		7.7%	Jan-09
Citi WGBI	-1.9%	-1.1%	0.6%	3.5%	5.1%	0.6%	2.4%	0.4%	0.6%	0.7%	2.1%	2.3%	Jan-09
Garcia Hamilton & Associates	-0.3%	-0.2%	-0.9%	-0.4%	-0.1%	0.6%	1.4%	2.0%	2.0%	3.0%	4.4%	5.1%	Aug-00
BBgBarc US Govt/Credit Int TR	-0.5%	-0.6%	-1.5%	-1.1%	-0.8%	0.0%	0.8%	1.3%	1.0%	2.0%	2.9%	4.3%	Aug-00
Logan Circle	-0.7%	-1.0%	-1.8%	0.0%	0.9%	1.8%	1.8%					2.1%	Oct-14
BBgBarc US Aggregate TR	-0.7%	-1.1%	-2.2%	-1.0%	-0.3%	0.3%	1.1%	1.9%	1.5%	2.6%	3.6%	1.5%	Oct-14
Longfellow	-0.7%	-0.8%	-1.8%	-0.3%	0.6%	1.1%	1.6%					2.0%	Sep-14
BBgBarc US Aggregate TR	-0.7%	-1.1%	-2.2%	-1.0%	-0.3%	0.3%	1.1%	1.9%	1.5%	2.6%	3.6%	1.7%	Sep-14
Rhumbline Core Bond Index	-0.7%	-0.8%	-2.0%	-0.9%	-0.3%	0.1%	0.9%	1.7%	1.2%	2.3%	3.4%	3.8%	Jun-07
BBgBarc US Aggregate TR	-0.7%	-1.1%	-2.2%	-1.0%	-0.3%	0.3%	1.1%	1.9%	1.5%	2.6%	3.6%	4.0%	Jun-07
Opportunistic Fixed Income Composite	0.0%	0.1%	1.0%	4.2%	4.7%	7.2%	3.6%	2.8%	3.2%			3.8%	Dec-12
Opportunistic Fixed Income Benchmark	0.5%	0.0%	0.8%	3.2%	3.8%	7.2%	4.5%	4.1%	4.3%	5.2%		4.8%	Dec-12
Apollo Franklin Partnership, L.P.	2.3%	-1.4%	1.4%	1.4%	0.1%	-1.2%	-5.1%	-6.8%				-4.2%	May-13
50% BarCap HY / 50% CSFB Lev Loans	0.6%	0.1%	0.9%	3.3%	4.0%	7.3%	4.6%	4.2%	4.5%	5.4%	6.5%	4.6%	May-13
Avenue Coppers Opportunity Fund LP	0.0%	0.0%	0.2%	4.5%	5.1%	5.2%	2.3%	2.9%				3.7%	Dec-13
Actuarial Rate 7.70%	0.6%	1.9%	2.5%	6.4%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Dec-13
KKR-PBPR Capital Partners LP	0.0%	3.1%	3.1%	4.3%	5.2%	8.7%	5.5%	4.1%	5.7%			6.7%	Jun-12
Actuarial Rate 7.70%	0.6%	1.9%	2.5%	6.4%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	Jun-12
Logan Circle - EMD	-1.5%	-2.7%	-0.8%	4.1%	5.4%	8.6%	6.4%					6.7%	Feb-15
JP Morgan EMBI Global TR	-1.5%	-3.0%	-3.2%	-0.4%	0.2%	4.3%	4.3%	4.3%	3.0%	5.6%	6.5%	4.8%	Feb-15
Strategic Income Management	0.9%	-0.2%	0.8%	4.8%	4.9%	8.7%						10.5%	Mar-16
ICE BofAML US High Yield TR	0.7%	-0.9%	-0.3%	2.2%	3.2%	8.3%	5.0%	4.4%	4.8%	6.1%	7.8%	10.0%	Mar-16

Annualized Performance (Net of Fees)

Market Value: \$5,243.8 Million and 100.0% of Fund

U.S. Equity Composite Russell 3000 Rhumbline Russell 1000 Index Rhumbline Russell 1000 Custom Benchmark Aronson+Johnson+Ortiz LP	1 Mo 0.3% 0.4% 0.4% 0.4% 0.6% 0.3% 2.3%	3 Mo -4.9% -5.3% -5.4% -5.4% -5.4% -6.1%	YTD -0.2% -0.2% -0.2% -2.3% -2.5%	Fiscal YTD 10.8% 10.9% 11.0% 11.1% 9.4%	1 Yr 13.1% 13.0% 13.3% 13.3%	2 Yrs 15.8% 15.8% 15.8%	3 Yrs 9.1% 10.2% 10.3%	4 Yrs 9.8% 10.8%	5 Yrs 11.8% 12.7%	7 Yrs 11.1% 12.0%	10 Yrs 8.9% 9.1%	Inception 9.7% 10.4%	Inception Date Jul-88
Russell 3000 Rhumbline Russell 1000 Index Rhumbline Russell 1000 Custom Benchmark	0.4% 0.4% 0.4% 0.6% 0.3% 2.3%	-5.3% -5.4% -5.4% -5.4% -6.1%	-0.3% -0.2% -0.2% -2.3%	10.9% 11.0% 11.1%	13.0% 13.3%	15.8% 15.8%	10.2%	10.8%					
Rhumbline Russell 1000 Index Rhumbline Russell 1000 Custom Benchmark	0.4% 0.4% 0.6% 0.3% 2.3%	-5.4% -5.4% -5.4% -6.1%	-0.2% -0.2% -2.3%	11.0% 11.1%	13.3%	15.8%			12.7%	12.0%	9.1%	10.4%	Jul-88
Rhumbline Russell 1000 Custom Benchmark	0.4% 0.6% 0.3% 2.3%	-5.4% -5.4% -6.1%	-0.2% -2.3%	11.1%			10.3%						
Custom Benchmark	0.6% 0.3% 2.3%	-5.4% -6.1%	-2.3%		13.3%	15.7%		10.9%	12.8%	11.9%	9.0%	7.7%	May-07
Aronson+Johnson+Ortiz I P	0.3% 2.3%	-6.1%		9.4%			10.3%	11.0%	12.9%				May-07
	2.3%		-2.5%		11.0%	12.8%	6.4%	7.4%	10.3%	10.6%	7.9%	7.9%	May-01
Russell 1000 Value		2.00/		5.9%	7.5%	11.9%	7.7%	8.1%	10.5%	10.6%	7.3%	6.8%	May-01
O'Shaughnessy Asset Management	0.20/	-3.6%	2.1%	16.7%	21.1%	18.2%	8.9%	9.4%	13.5%			15.3%	Jun-12
Russell 1000 Value	0.3%	-6.1%	-2.5%	5.9%	7.5%	11.9%	7.7%	8.1%	10.5%	10.6%	7.3%	12.9%	Jun-12
Rhumbline MidCap Index	-0.2%	-4.2%	-0.7%	9.0%	11.1%							13.0%	Dec-16
Rhumbline Russell Mid Cap Custom Benchmark	-0.2%	-4.3%	-0.7%	9.1%	11.1%							13.0%	Dec-16
Rhumbline Russell 2000 Index	0.8%	-1.7%	0.9%	10.1%	11.9%							11.7%	Dec-16
Rhumbline Russell 2000 Custom Benchmark	0.8%	-1.8%	0.8%	10.1%	11.7%							11.5%	Dec-16
Emerald Advisors	0.3%	-3.5%	-1.5%	13.1%	19.5%	21.7%	10.6%	12.8%	15.3%	12.4%	12.3%	10.0%	Dec-04
Russell 2000 Growth	0.1%	-1.4%	2.4%	13.8%	16.6%	20.3%	9.9%	11.1%	13.1%	10.7%	10.4%	8.9%	Dec-04
Fisher Asset Management	1.0%	-1.6%	0.8%	8.4%	11.2%	18.2%	11.2%	11.0%	13.0%	10.5%	10.3%	10.3%	May-08
Russell 2000 Value	1.7%	-2.2%	-1.0%	6.2%	6.5%	16.4%	9.3%	8.2%	10.4%	9.4%	8.5%	8.5%	May-08
Fiera Capital	-1.7%	-2.4%	2.5%	17.1%	17.9%	18.0%	8.2%	9.7%	12.7%	11.5%		15.2%	Dec-09
Russell 2500 Growth	-0.6%	-3.1%	1.7%	14.4%	17.1%	18.9%	9.6%	11.1%	13.1%	11.2%	10.5%	14.4%	Dec-09
Ariel	-2.1%	-6.9%	-1.0%	6.5%	6.9%	13.0%						15.7%	Jan-16
Russell 2500 Value	1.1%	-2.8%	-1.6%	6.5%	7.0%	13.6%	8.2%	7.7%	10.1%	9.8%	9.0%	17.9%	Jan-16
Ion-U.S. Equity Developed	2.2%	-4.1%	0.1%	10.5%	14.4%	12.8%	4.3%	3.4%	5.4%	4.1%	2.2%	5.8%	Jan-89
MSCI EAFE	2.3%	-4.1%	0.7%	10.7%	14.5%	12.9%	4.9%	4.1%	5.9%	4.8%	2.4%	4.8%	Jan-89
Causeway Capital Management	3.0%	-4.2%	-1.0%	11.5%	14.5%	13.3%	4.1%	3.9%	6.9%			10.1%	Nov-11
MSCI EAFE	2.3%	-4.1%	0.7%	10.7%	14.5%	12.9%	4.9%	4.1%	5.9%	4.8%	2.4%	8.7%	Nov-11
Northern Trust MSCI EAFE+Canada	2.1%	-4.2%	0.3%	10.2%	14.3%	12.4%	4.7%	3.9%	5.6%	4.5%	3.0%	3.4%	Mar-07
Northern Trust MSCI EAFE + Canada Custom Benchmark	2.1%	-4.1%	0.3%	10.2%	14.3%	12.8%	5.1%	4.5%	6.4%	5.2%	2.9%	3.0%	Mar-07
Northern Trust International Small Cap	0.8%											0.8%	Mar-18
MSCI EAFE Small Cap	1.4%	-3.3%	1.6%	15.8%	20.0%	16.5%	11.1%	8.8%	10.6%	8.2%	6.4%	1.4%	Mar-18

Annualized Performance (Net of Fees)

Market Value: \$5,243.8 Million and 100.0% of Fund

Ending April 30, 2018

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Strategic Global Advisors	2.5%	-2.6%	1.7%									4.2%	Nov-17
MSCI World ex USA Small Cap	1.5%	-3.5%	1.0%	14.7%	18.8%	15.3%	10.0%	7.5%	9.4%	6.7%	5.7%	3.9%	Nov-17
Investors Group	2.1%	-1.8%	2.8%									6.1%	Nov-17
MSCI EAFE Small Cap	1.4%	-3.3%	1.6%	15.8%	20.0%	16.5%	11.1%	8.8%	10.6%	8.2%	6.4%	4.3%	Nov-17
Non-U.S. Equity Emerging Composite	-1.0%	-7.3%	1.0%	17.8%	23.6%	20.4%	6.6%	6.4%	5.0%	0.9%		10.7%	Jan-09
MSCI Emerging Markets	-0.4%	-6.8%	1.0%	17.0%	21.7%	20.4%	6.0%	6.4%	4.7%	2.0%	2.2%	11.5%	Jan-09
Rhumbline Emerging Markets Index	-1.0%	-7.3%	1.0%	17.8%	23.6%	20.4%	6.5%	6.7%	5.0%			4.2%	Feb-13
MSCI Emerging Markets	-0.4%	-6.8%	1.0%	17.0%	21.7%	20.4%	6.0%	6.4%	4.7%	2.0%	2.2%	4.1%	Feb-13

Investment Manager

Annualized Performance (Net of Fees)

Market Value: \$5,243.8 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Absolute Return	1.8%	0.3%	3.6%	9.5%	11.1%	12.5%	4.9%	3.8%	4.8%	3.7%	3.1%	3.7%	Sep-05
HFRI Fund of Funds Composite Index	0.2%	-1.8%	0.5%	4.9%	5.2%	5.7%	1.8%	2.9%	3.3%	2.4%	1.5%	2.7%	Sep-05
Elizabeth Park Capital Management	2.1%	0.4%	4.3%	11.2%	13.2%	18.4%	13.8%					11.8%	May-14
HFRX Event Driven Index	0.4%	-6.0%	-4.4%	-2.7%	-1.8%	6.8%	1.1%	-0.3%	1.6%	1.6%	0.9%	-0.5%	May-14
Archview Offshore Fund. LTD	0.0%	-1.3%	1.0%	7.5%	7.7%	9.5%	1.1%	1.5%				1.7%	Mar-14
HFRI ED: Distressed/Restructuring Index	0.7%	-0.3%	1.0%	4.1%	3.8%	10.6%	3.7%	2.1%	3.8%	4.0%	4.4%	2.2%	Mar-14
Real Assets Composite	0.3%	-1.0%	-1.6%	1.8%	2.4%	6.4%	0.3%	2.3%	4.5%			6.0%	Dec-12
Real Assets Benchmark	0.5%	-1.3%	-1.9%	1.3%	0.5%	6.7%	-4.8%	-2.6%	-0.5%			1.5%	Dec-12
Real Assets - Public Real Estate Composite	0.5%	-3.4%	-6.2%	-2.8%	-1.0%	3.2%	4.8%	7.5%	6.6%			7.5%	Jan-13
FTSE NAREIT All Equity REIT Custom Benchmark	0.5%	-3.4%	-6.2%	-2.8%	-1.1%	3.2%	4.8%	6.9%	5.6%				Jan-13
Rhumbline FTSE NAREIT	0.5%	-3.4%	-6.2%	-2.8%	-1.0%	3.2%	4.9%	6.9%	5.6%			5.6%	May-13
FTSE NAREIT All Equity REIT Custom Benchmark	0.5%	-3.4%	-6.2%	-2.8%	-1.1%	3.2%	4.8%	6.9%	5.6%			5.6%	May-13
Real Assets - Open-End Real Estate Composite	0.0%	1.6%	1.6%	4.9%	6.2%						-	5.7%	Jan-17
NFI	0.0%	1.3%	2.0%	5.6%	6.6%	6.9%	8.6%	9.6%	10.2%	10.5%	4.2%	6.5%	Jan-17
UBS Trumbull Fund	0.0%	1.7%	1.7%	5.0%	6.2%							5.7%	Jan-17
NFI	0.0%	1.3%	2.0%	5.6%	6.6%	6.9%	8.6%	9.6%	10.2%	10.5%	4.2%	6.5%	Jan-17
Clarion Lion Properties Fund	0.0%	1.5%										1.5%	Feb-18
NFI	0.0%	1.3%	2.0%	5.6%	6.6%	6.9%	8.6%	9.6%	10.2%	10.5%	4.2%	1.3%	Feb-18
Real Assets - Infrastructure Composite	1.1%	-4.1%	-4.1%	-0.1%	2.2%						-	3.5%	Mar-17
Dow Jones Brookfield Global Infrastructure Index	1.5%	-3.8%	-3.9%	-0.2%	2.0%	6.5%	1.6%	3.6%	5.0%	7.9%	6.8%	3.3%	Mar-17
Rhumbline Infrastructure Index	1.5%	-3.7%	-3.7%	0.3%	2.6%							3.9%	Mar-17
Dow Jones Brookfield Global Infrastructure Index	1.5%	-3.8%	-3.9%	-0.2%	2.0%	6.5%	1.6%	3.6%	5.0%	7.9%	6.8%	3.3%	Mar-17
Rreef Global Infrastructure	0.0%											0.0%	Mar-18
Dow Jones Brookfield Global Infrastructure Index	1.5%	-3.8%	-3.9%	-0.2%	2.0%	6.5%	1.6%	3.6%	5.0%	7.9%	6.8%	1.5%	Mar-18

Annualized Performance (Net of Fees)

Market Value: \$5,243.8 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Real Assets - Private Real Estate Composite	0.0%	0.0%	0.0%	3.5%	5.0%	7.5%	7.9%	8.9%	10.2%	9.9%	1.7%	3.7%	May-06
Real Assets - Private Real Estate Benchmark	0.0%	0.0%	0.0%	3.5%	5.0%	7.5%	7.9%	8.9%	10.2%				<i>May-06</i>
Real Assets - Private Energy/Infrastructure Composite	0.0%	0.1%	0.1%	11.7%	20.5%	16.9%	-3.9%	-3.7%	5.2%			3.9%	May-12
Real Assets - Private Energy/Infrastructure Benchmark	0.0%	0.1%	0.1%	11.7%	20.5%	16.9%	-3.9%	-3.7%	5.2%			3.9%	May-12
Private Assets Composite	0.0%	0.0%	0.0%	1.6%	4.0%	7.0%	6.5%						Mar-87